



The Clean and Efficient Use of Fossil Energy for Power Generation in Thailand

The Joint Eighth APEC Clean Fossil Energy Technical Seminar and Seventh APEC Coal Flow Seminar

Monday — October 30, 2000

8:00-9:00 REGISTRATION

9:00-10:10 OPENING REMARKS

by **Dr. Sun Chun**, Chair, APEC
EGCFE, Department of Energy, U.S.A.

by **Mr. Piromsakdi Laparojkit**,
Secretary-General, National Energy
Policy Council, Thailand

by **Mr. Yoshito Yoshimura**, Director,
Coal Industry Division, Coal & New
Energy Department, ANRE, MITI,
Japan

by **Mr. Paul Tighe**, Chargé d'affaires,
Australian Embassy, Thailand

by **Mr. Robert Gee**, Assistant
Secretary, Department of Energy,
U.S.A.

10:10-10:30 COFFEE BREAK

SESSION 1 COAL IN THE APEC ECONOMIES

Chair: Dr. Xu Shisen, Director, New Power Technology Center,
Thermal Power Research Institute (TPRI), P.R. China

**10:30-11:00 The Energy and Environment
Interface: A Sustainable Development
Perspective — Mr. Jon Davis,**
Rio Tinto, Australia

**11:00-11:30 Environmental Impacts of Fossil
Fuels in APEC Economies — Dr.**
Charles J. Johnson, Coordinator,
Environmental Studies, East-West
Center, U.S.A.

**11:30-12:00 Electricity Sector Deregulation in the
Asia Pacific Region and The Future of
Fossil Fuels for Power Generation —**
Dr. David Cope, Team Leader, Asia
Pacific Energy Research Center
(APEREC), Japan

12:00-1:30 LUNCH

SESSION 2 THE IMPORTANT ROLE OF COAL AND NATURAL GAS IN DEVELOPING ECONOMIES

Chair: Dr. Frank Mourits, Senior Coal Specialist, Natural
Resources, Canada

1:30-2:00 Case Study— Malaysia
Mr. John Thaddeus, Senior Manager,
TNB Fuel Services SDN BHD,
Malaysia

2:00-2:30 Case Study— Indonesia
Mr. Boni Siahaan, Head, Sub-
Directorate of Utilization, Directorate
of Coal, DGM, MEMR, Ministry of
Energy and Mineral Resources,
Indonesia

**2:30-3:00 The Important Role of Coal and
Natural Gas in Viet Nam —**
Dr. Nguyen Binh, Manager General,
Institute of Mining Science and
Technology, Viet Nam National
Cooperation (VINACOL)

3:00-3:30 COFFEE BREAK

SESSION 3 COAL AND ENVIRONMENTAL-RELATED SITUATION IN THAILAND

Chair: Prof. Thierry Lefevre, Director, Center for Energy-
Environment Research and Development (CEERD), Asian Institute
of Technology (AIT), Thailand

**3:30-3:55 Thailand's Fossil-Fuel Reserves and
Supplies: Present and Future —**
Mr. Krairit Nilkuha, Director, Mineral
Fuels Division, Department of Mineral
Resources, Ministry of Industry,
Thailand

**3:55-4:20 Estimation of External Costs
Associated with Electricity Generation
Using Coal/Lignite in Thailand —**
Mr. Sameer Shrestha, Senior
Researcher Associate, Center for
Energy-Environment Research and
Development (CEERD), AIT, Thailand

**4:20-4:45 Public Concerns about Fossil-Fuels
Use in Thailand — Mrs. Kluephan
Baitrakul**, Director, Environmental
Impact Evaluation Division, OEPP,
Ministry of Science, Technology and
Environment, Thailand

4:45-5:00 SUMMARY AND CLOSING —
Dr. Sun Chun, Chair, APEC EGCFE

Tuesday — October 31, 2000

9:00-9:05 **OPENING REMARKS —**
*Mr. Hiroshi Yoshida, Executive
Director, NEDO, Japan*

SESSION 4 COAL-FIRED POWER PLANT- RELATED ENVIRONMENTAL ISSUES

Chair: *Dr. Shih-Ming Chuang, Director, First Division, Energy
Commission, Ministry of Economic Affairs, Chinese Taipei*

9:05-9:30 *Enhancing the Development of Coal
Use: Addressing the Environmental
Challenges — Ms. Charlotte Griffiths,
Senior Manager, World Coal Institute,
United Kingdom*

9:30-9:55 *Coal in a Sustainable Society —
Dr. Louis Wibberley, Research
Associate, BHP, Center for Metallurgy
and Resource Processing, Australia*

9:55-10:20 *Status and Operation of Wet FGDs for
Thermal Power Plants in KEPSCO —
Dr. Seung Soo Park, Senior Member of
Technical Staff, Korea Electric Power
Research Institute (KEPRI), Republic of
Korea*

10:20-10:45 **COFFEE BREAK**

SESSION 5 COMMERCIALLY AVAILABLE CCTs IN THE APEC REGION

Chair: *Mr. Scott Smouse, Senior Management & Technical
Advisor – International, National Energy Technology Laboratory,
Department of Energy, U.S.A.*

10:45-11:10 *SO₂-NO_x Reduction Technologies —
Mr. Akihiro Saiga, Chief Engineer,
Energy and Environmental
Development Department, Takuma
Co.,Ltd., Japan*

11:10-11:35 *Current Status of CCTs in the APEC
Region — Mr. Arto Hotta, Director,
Applied Fluidized-Bed Technology,
Foster Wheeler Energy Pte., Ltd.,
U.S.A.*

11:35-12:00 *Horizontal Bias Combustion Burners
for Low Rank Coal in China — Dr.
Sun Shaozeng, Professor, School of
Energy Science and Engineering,
Harbin Institute of Technology / Mr.
Zhang Yong, Deputy-Director,
Department of Production, Henan
Provincial Electric Power Co., P.R.
China*

12:00-1:30 **LUNCH**

SESSION 6 Emerging Technologies to Reducing GHG Emissions

Chair: *Dr. Sung Chul Shin, Senior Advisor, Korea Institute of
Energy Research (KIER), Republic of Korea*

1:30-2:00 *The Research and Development of
IGCC in China — Dr. Xu Shisen,
Director, New Power Technology
Center, TPRI, P.R. China*

2:00-2:30 *Capture and Sequestration of
Greenhouse Gases in Canada —
Dr. Frank Mourits, Minerals & Metal
Sector, Natural Resources, Canada*

2:30-3:00 *Other Emissions — Mr. Scott Smouse,
Senior Management & Technical
Advisor – International, National
Energy Technology Laboratory,
Department of Energy, U.S.A.*

3:00-3:20 **COFFEE BREAK**

SESSION 7 CLEAN FUELS IN THE APEC REGION

Chair: *Mr. John Karas, Manager, Coal Industries, Coal and
Mineral Industries Division, Department of Industry Science and
Resources, Australia*

3:20-3:45 *Alternate Clean Fuels for
Transportation — Mr. Wayne
Edwards, Manager, Environment and
Energy Division, Levelton Engineering
Ltd., Canada*

3:45-4:10 *Liquid Fuels Specifications —
Mr. John Karas, Manager, Coal
Industries, Coal and Mineral Industries
Division, Department of Industry
Science and Resources, Australia*

4:10-4:35 *Clean CNG in Transportation in
Selected APEC Cities —
Mr. Suwanant Chatudomphunth, Senior
Vice President Planning, PTT Gas,
Thailand*

4:35-4:45 **SUMMARY AND CLOSING — Mr.
Yoshihiko Nakagaki, Vice Chairman,
JAPAC and Vice President, Electric
Power Development Co.,Ltd., Japan**

6:00-7:30 **RECEPTION AND DINNER —
JAPAC, Japan (Host)**

Wednesday — November 1, 2000

9:00-9:05 OPENING REMARKS — Australia

SESSION 8 Growing Important of IPPs in the APEC Region

Chair: Mr. David C. Tan, President, Edison Global Electric Ltd. /Philippines Independent Power Producers Association, Inc. Philippines

9:05-9:30 Case Study – IPPS in APEC Economies: Trends and Issues — Prof. Thierry Lefevre, Director, Center for Energy-Environment Research and Development, Asian Institute of Technology (AIT), Thailand

9:30-9:55 The Role of IPP in APEC Region — Dr. Shih-Ming Chuang, Director, First Division, Energy Commission, Ministry of Economic Affairs, Chinese Taipei

9:55-10:20 The Importance of IPPs and Their Changing Role in The Proposed Competitive Philippine Power Industry —Dr. Fernando Y. Roxas, Head, Privatization & Restructuring External Office, National Power Corp., Philippines

10:20-10:45 COFFEE BREAK

SESSION 9 Cooperation Among APEC Economies

Chair: Mr. Hiroaki Ichinose, Deputy Director, Coal Industry Division, ANRE, Japan

10:45-11:10 In-Line Type Flue Gas Desulfurization System for Thai Union Paper Co.,Ltd. —Mr. Jiamin Ni, Air Pollution Control Design Department, Power Plant Division, Ishikawajima-Harima Heavy Industries, Co.,Ltd., Japan

11:10-11:35 Supercritical Coal-Fired Power Generation Cooperative Effort Between B&W and TPRI of China — Mr. Jim Zhou, Principal Engineer/Combustion Specialist, Babcock & Wilcox Co., U.S.A.

11:35-12:00 Issue of Fossil Fuel Resources and Coal Technology Strategy for the 21st Century —Toward the Globalization —Mr. Katsuyoshi Ando, Vice

Chairman, JAPAC and President, JCOAL, Japan

12:00-1:30 LUNCH

SESSION 10 EXPERTS PANEL ON CLEAN FOSSIL ENERGY OPTIONS

Chair: Dr. Praipol Koomsup, Lecturer, Faculty of Economics, Thammasat University, Bangkok, Thailand

**1:30-3:30 Panelist 1: Mr. Bunpot Sangkeo, Director, System Planning Division, Electricity Generation Authority of Thailand (EGAT), Thailand
Panelist 2: Mr. Chanin Vongkusolkrit, Group President, Banpu Public Co.,Ltd., Thailand
Panelist 3: Mr. Paul S. Tish, Director, Industrial Technology, Unocal New Ventures Ltd., Thailand
Panelist 4: Mr. Chaya Jivacate, Consultant (Solar Energy), National Energy Policy Office (NEPO), Thailand**

3:10-3:30 COFFEE BREAK

**3:30-4:40 SUMMARIES — Chair: Dr. Charles Johnson, Coordinator, Environmental Studies, East-West Center, U.S.A.
Session Chairs — Summaries of all sessions**

4:40-4:50 CLOSING REMARKS — Mr. Piromsakdi Laparojkit, Secretary-General, NEPO, Thailand

4:50-5:00 CLOSING REMARKS —Dr. Sun Chun, Chair, APEC EGCFE, Department of Energy, U.S.A.

5:15-6:30 APEC Coal Flow Business Meeting — by Invitation

6:30-8:30 DINNER — Thailand (Host)

Thursday — November 2, 2000

8:00-6:00 Tour of COCO and Rayong Power Plants, Rayong

8:00 Leave Amari Watergate Hotel

10:00 Briefing and Tour of Coco Power Plant

12:00 LUNCH

2:00 *Briefing and Tour of Rayong Power Plant*

4:00 *Leave for Bangkok*

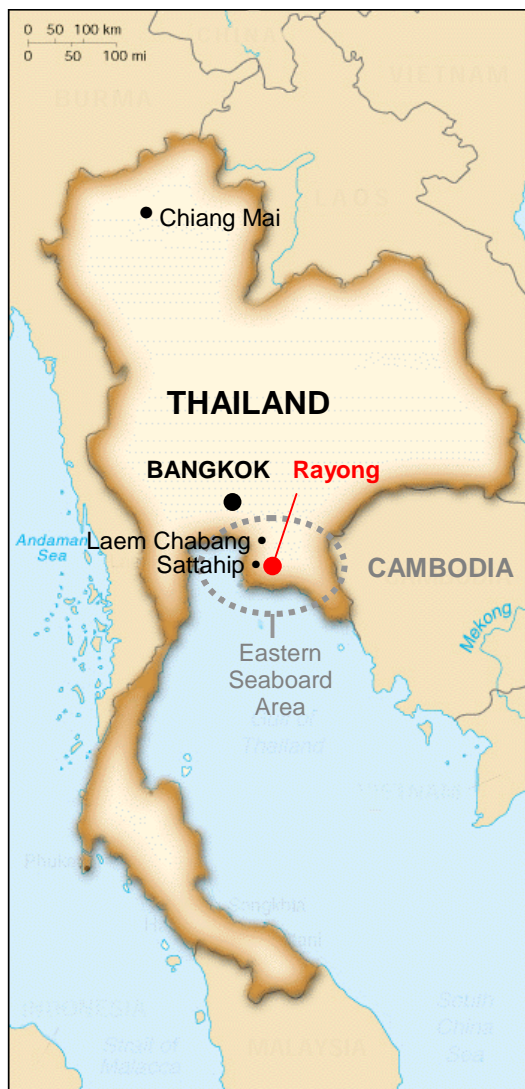
Friday—November 3, 2000

8:30-2:00 ***APEC EGCFF Business Meeting*** —
by Invitation
**Chair: Dr. Sun Chun, Chair, APEC
EGCFE, Department of Energy, U.S.A.***

** All APEC members are invited to this meeting.
However, only officials designated by their economies
will be allowed to vote on issues raised by the EGCFF.*

❖ **Upcoming Event:** *Following this seminar will be the
APEC Trade and Investment Liberalization and Facilitation
(TILF) Workshop entitled “Vietnam: Facilitating
Development in The Coal and Power Sectors”. It is scheduled
for November 7-9, 2000 at the Hilton, Hanoi, Vietnam. For
more information about this workshop, please contact Ms. Kylie
Naveau at knaveau@isr.gov.au*

Geography of the power plants tour site



General Information

Power Plants

- ❖ Coco Power Plant
- ❖ Rayong Power Plant

Companies

- ❖ Cogeneration Plc. Ltd. (Coco)
- ❖ EGCO (Rayong)

Capacity

- ❖ 770 MW (Coco)
- ❖ 1,232 MW (EGCO)

Fuel

- ❖ Coal & Natural Gas (Coco)
- ❖ Natural Gas (EGCO)

Location

Rayong Province

Distance

119 mi (190 km) east of Bangkok

Status

Full Operation